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# GRASS

for conservation and  
environmental quality



U.S. DEPARTMENT OF AGRICULTURE  
Soil Conservation Service  
Jackson, Mississippi

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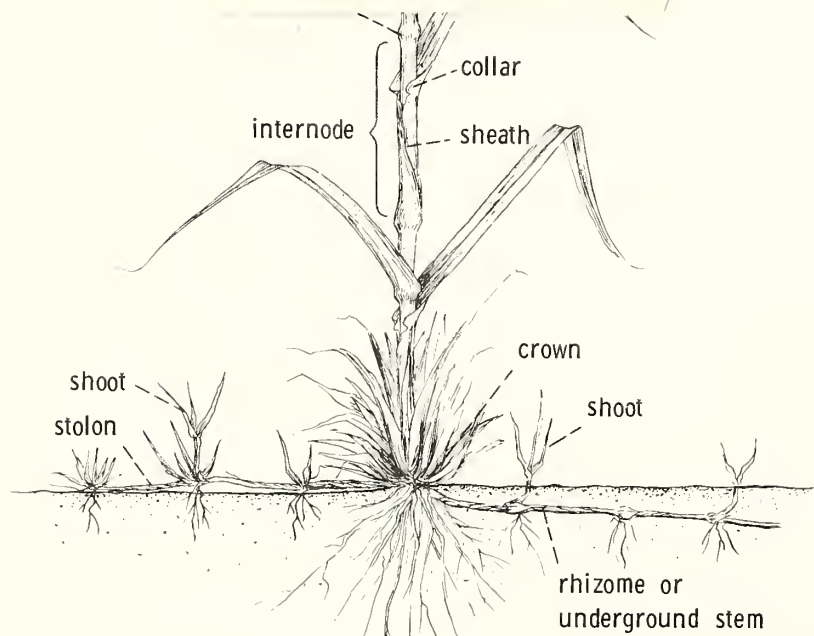
BEAUTY 5

ENVIRONMENTAL IMPROVEMENT 6

SPECIAL USES 8

WATERSHED PROTECTION 10

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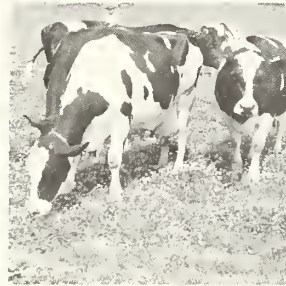
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MOST OF US KNOW THAT GRASS IS WHAT MAKES LAWNS, PASTURES,  
AND BALL FIELDS GREEN, BUT FEW UNDERSTAND THE IMPORTANT ROLE  
OF GRASS IN THE OVERALL SCHEME OF THE ENVIRONMENT.

GRASS IS OUR MOST VERSATILE PLANT FOR SOIL AND WATER  
CONSERVATION. WHEREVER THERE IS GRASS, BENEFITS TO THE  
ENVIRONMENT TAKE PLACE, MANY FAR AWAY FROM WHERE THE GRASS  
IS GROWING.

THE FOLLOWING PAGES SHOW A FEW OF THE HUNDREDS OF USES  
OF GRASS AS A BASIC ELEMENT IN THE PROTECTION, DEVELOPMENT,  
AND CONSERVATION OF OUR SOIL AND WATER RESOURCES.

# GRASS AND FOOD



Improved pastures not only produce meat and milk, and bring income into the state, but are among the most effective means of conserving soil and water.



The plastic-wrapped steak on your supermarket counter, or the milk on your doorstep, is a product of grass. Americans enjoy the best diet in the world, but spend the smallest portion of their average income for food of any other country. Good management of grasslands helps make this possible.



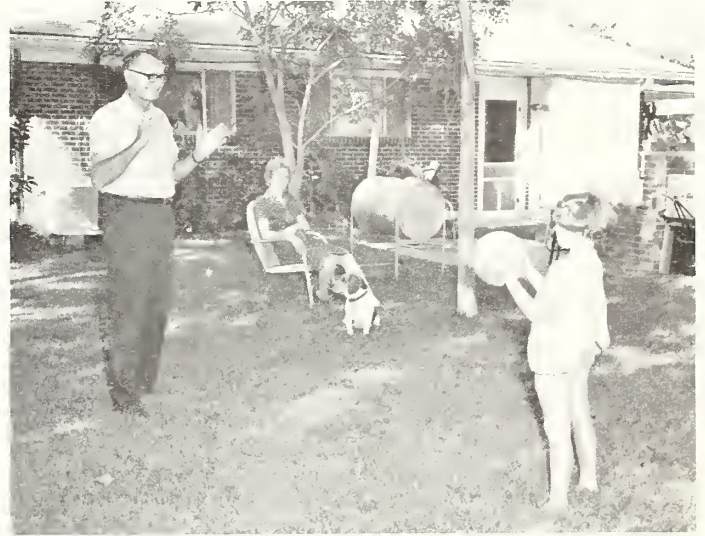
Food crops are grown on cultivated lands, and grass is used to protect the land and to help keep it productive. Grass is used on cropland for several conservation measures, including contour strips, sod waterways, and field borders. The grass waterway in this picture is on the James Stringer farm, in Jasper County.



# GRASS AND BEAUTY



Schools, courthouses, and historic sites that are beautified with grass and other plants improve community pride. Erosion and sedimentation are halted.



No home is considered complete without a pretty lawn. A good cover of grass holds soil, water, and plant food. Work by the Soil Conservation Service on rural lands has helped improve the environment and beauty of rural areas.



Grass pleases the eye, but its beauty means much more. Grass truly is a friend, furnishing food for livestock and protection for the soil.

# GRASS AND

GRASS IS AN IMPORTANT PART OF YOUR ENVIRONMENT.  
MUCH OF THE OXYGEN YOU BREATHE COMES FROM GRASS.  
GRASS HELPS THE SOIL ABSORB RAINWATER, AND THUS IS A  
KEY TO RECHARGING THE UNDERGROUND WATER THAT SUPPLIES  
OUR WELLS AND SPRINGS. GRASS REDUCES MANY FORMS OF  
POLLUTION AND IN MANY OTHER WAYS MAKES THE WORLD  
A MORE LIVABLE PLACE.



Chemicals, soil particles, and plant nutrients that are pollutants when they are allowed to get out of place are held tightly by a solid cover of this grass. The root system helps open the soil and improve water intake, an important step in the water cycle.

Sediment and other pollutants cover fish spawning beds, clog gills, and fill in streambeds. A cover of grass is the quickest and most effective way sedimentation of streams can be controlled. This objective is in harmony with good pasture management.



Grass helps protect the quality of water by keeping sediment and other pollutants out of streams and reservoirs.





# ENVIRONMENTAL QUALITY



Here corn is being planted in grass sod. This is a new use of grass on cropland to reduce soil loss, increase soil moisture insoak, and improve organic matter. Inset shows corn plants growing in grass sod cover.



Grass strips in cropland create more "edge habitat" which is needed by ground-nesting birds such as quail, killdeer, and meadowlark. The grass provides food and protection from predators as well as a place to hide a nest.



The swimming, water skiing, and fishing we enjoy requires pure, clean water. The grassy slopes serve as giant water filters, cleaning impurities from surface water as it moves down to storage areas.

# GRASS FOR SPECIAL USES

GRASS CAN WORK ON CONSERVATION PROBLEMS WHEREVER THEY OCCUR. EROSION FROM UNPROTECTED LAND IS NOT STRICTLY A FARM PROBLEM--IN FACT, MUCH OF THE SEDIMENT DAMAGE AND LAND-RELATED POLLUTION STARTS ON NONFARM LAND. THESE PICTURES SHOW A FEW NONFARM CONSERVATION PROBLEMS THAT ARE BEING SOLVED WITH GRASS.

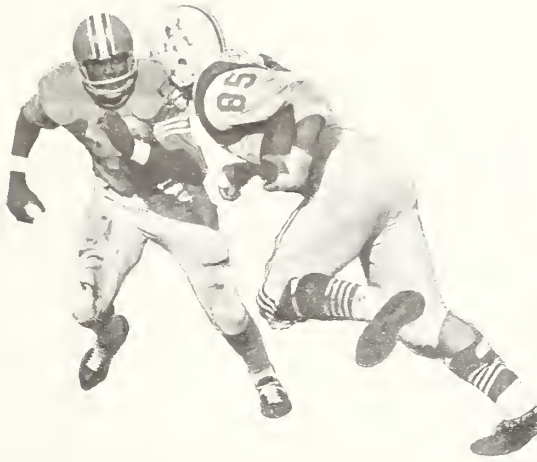
Old surface mine scars can be healed with grass, as this one near Raleigh, Mississippi.



Grass plays a key role in conservation and beautification of military installations. These scenes are of the Meridian Naval Air Station near Meridian, Miss. Bahiagrass provides excellent ground cover between runways. The grass was established as part of a soil and water conservation plan.







Tons of young muscle gives a sod the acid test. This field of Tufcoat bermuda on the football field at Hernando gives the most satisfactory playing surface with resistance to the tough Saturday afternoon traffic.



Utility rights-of-way, once considered idle areas, are now covered with grass for conservation, beautification, and wildlife food and cover.



Grass means much to golfers. These ladies are enjoying a three-par course at Hattiesburg. The green is Tiff-Dwarf Bermudagrass.

# GRASS FOR

In gullied, eroded areas two forms of damage are taking place. First, the gullied land is deteriorating, and second, sediment pollution is occurring at a lower level. The first step to improving any watershed, then, is the stabilization of eroding areas. Grass is often used for this purpose.



Dams and streambanks are made safe and beautiful with a cover of grass.



In some areas a large burden of sediment goes into streams and lakes from bare, washing roadsides. Research and experience have produced several grasses that can effectively stabilize such areas.





# WATERSHED PROTECTION

Organized water management districts provide watershed treatment under Public Law 566, assisted by the Soil Conservation Service. The basic elements include; grass management and other conservation measures on the upland to reduce erosion and hold back water; flood detention dams to hold runoff after heavy rains and to release the water at a safe, manageable rate; removal of snags and debris from the channel below the dam, and other improvements to restore the channel capacity to its original state. Public and private land and property is protected, and there are many environmental benefits.



This grassy scene was a spoil bank from channel excavation. It is seeded to grass to prevent the loose soil from eroding and to control sediment.



Grass in woodland is called "range" when it is used for grazing. Proper range management improves the water-holding capacity of the soil, and downstream areas benefit.



Warren T. Johnson of Grenada County planting corn directly in a ryegrass sod. This practice reduces soil loss and greatly increases the soil's water-holding capacity.



Bahiagrass Dallisgrass

# IMPORTANT MISSISSIPPI GRASSES

for conservation and  
environmental quality



Fescuegrass Ryegrass King Ranch Bluestem  
Weeping Lovegrass Johnsongrass



Bermudagrass

- BAHIAGRASS - used extensively for critical area stabilization, grazing, hay, seed production and for erosion control on cropland.
- DALLISGRASS - suited to fine and medium textured soils. Used for grazing, hay and erosion control.
- FESCUEGRASS - suited to fine and medium textured soils. Used for erosion control, winter grazing and seed production.
- RYEGRASS - used extensively for winter grazing and erosion control in cropping systems with no-tillage farming.
- KING RANCH BLUESTEM - used for erosion control and grazing on severely eroded areas in the Mississippi Blackland Prairie.
- WEEPING LOVEGRASS - used for erosion control on roadside, channel spoil and gullied areas on coarse textured soils.
- JOHNSONGRASS - suited to fine and medium textured soils. Used for temporary grazing and hay production in some areas of the state.
- BERMUDAGRASS - suited to most soils in the state and used extensively for erosion control, grazing and hay production.